Catalogue of American Amphibians and Reptiles.

McCranie, J.R. 2006. *Bolitoglossa synoria.*

Bolitoglossa synoria McCranie and Köhler

Bolitoglossa dunni: Wake and Lynch 1976:16 (in part).

Bolitoglossa celaque: McCranie and Wilson 1993:14.

Bolitoglossa synoria McCranie and Köhler 1999:226. Type-locality, "Quebrada La Quebradona (14°23. 96'N, 89°07.38'W), north slope of Cerro El Pital, 2150 m elevation, Departamento de Ocotepeque, Honduras." Holotype, Forschungsinstitut und Naturmuseum Senckenberg, Frankfurt am Main (SMF) 78083, an adult male, collected by G. Köhler and J.R. McCranie, 10 May 1997 (examined by author).

B [*olitoglossa*]. (*Magnadigita*) *synoria*: Parra-Olea et al. 2004:336.

• **CONTENT**. No subspecies are recognized.

• **DEFINITION**. *Bolitoglossa synoria* is a moderately large salamander (SVL 37.4–52.0 mm, mean = 46.8±4.7 mm in 13 adult males, 31.2–59.8 mm, mean = 46.5±10.8 mm in 11 adult females) with a long broad head (head length/SVL 0.242–0.291 in adult males, 0.227–0.273 in adult females; head width/SVL 0.152–0.188 in adult males, 0.153–0.181 in adult females). The snout is truncate to broadly rounded in dorsal aspect and broadly rounded in lateral profile. The labial protuberances are well developed in adult males and weakly developed in adult females. Adult males have a distinct, oval-shaped mental gland cluster. The eyes are slightly protuberant and not or only narrowly visible beyond the margin of the jaw when viewed from below in both sexes. The postorbital groove is shallow and irregular and extends posteriorly from the eye before turning sharply ventrally to connect with the gular fold, and another groove proceeds sharply ventrally just posterior to the lower jaw and extends irregularly across the throat anterior to the gular fold. There is no sublingual fold. The maxillary teeth number 40–58 (50.1±4.5) in adult males, 31–64 (47.6±11.4) in adult females, and extend posteriorly to a level beyond the center of the orbit, and increase in number with increasing adult size. The vomerine teeth number 21–31 (25.0±3.0) in adult males, 16–32 (22.7±4.7) in 10 adult females, and are in long, single, arched series that extend laterally to a level slightly beyond the medial border of the choanae. The premaxillary teeth number 2–5 (3.8±1.0) in adult males and 3–9 (6.2±1.7) in adult females. The premaxillary teeth are enlarged and pierce the lip or are located just posterior to the lip in adult males and are not enlarged and are located posterior to the lip and in line with the maxillary series in all females. The costal grooves number 13. The tail is nearly rectangular in cross section anteriorly, becoming ovoid for about the distal one-third of its length. The tail is strongly constricted basally and relatively short (tail length/SVL 0.755–0.900 in 8 adult males, 0.691–0.719 in 2 adult females). The limbs are relatively slender and long (hind limb length/SVL 0.260–0.292 in 6 adult males, 0.246–0.285 in 5 adult females). The adpressed limbs vary from slightly overlapping to a limb interval of 1.0 costal fold in adult males and from slightly overlapping to a limb interval of 2.0 costal folds in females. The digits are slightly webbed, with from two to slightly more than two segments on both sides of Toe III on the forelimbs and of Toe III between Toes III–IV on the hind limbs free of webbing. The protruding toe tips are bluntly rounded and all toe tips have well-developed subdigital pads. The relative length of the toes on the forelimbs is I<IV< II<III, whereas that on the hind limbs is I<V<II<IV<III. A fairly distinct to poorly evident postiliac gland cluster is present. Males have cloacal papillae and females have cloacal folds.

Figure 1. Adult male holotype (SMF 78083) of *Bolitoglossa synoria* (photograph by the author).

The color in life of the male holotype (from McCranie and Köhler, 1999; color codes and numbers from Smithe 1975–1981): dorsal surfaces of the head and body were uniformly Dark Grayish Brown (20). Lateral surfaces of the head and body and the dorsal surface of the tail were Dark Grayish Brown, with Clay Color (26) mottling and flecking. Ground color of the dorsal surfaces of the limbs was slightly paler than that of the head and body and had slightly paler flecking. Ventral surfaces of the head and body were pale brown with dirty white flecking. The subcaudal surface was Dark Grayish Brown with dirty white mottling. The iris was pale brown.

The color in alcohol of the male holotype (from McCranie and Köhler, 1999): dorsal surfaces of the head, body, and tail are dark brown with some pale brown flecking at the base of the tail. The lateral surface of the body is slightly paler brown than the dorsal surfaces and has pale brown flecking and small spots. The lateral surface of the tail is dark brown with pale brown flecking. Dorsal surfaces of the limbs are slightly paler brown than the other dorsal surfaces and have pale brown mottling. Ventral surfaces of the head and body are pale brown with dark brown flecking. The subcaudal surface is dark brown with pale brown mottling and flecking, becoming progressively darker distally.

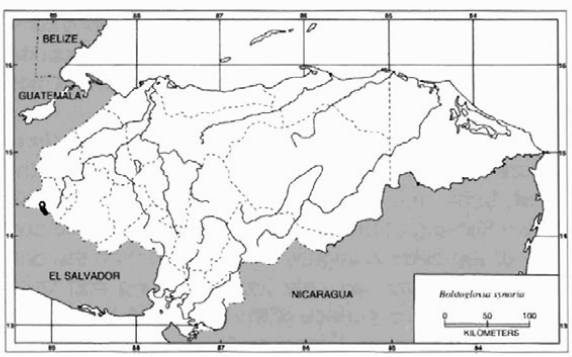
• **DIAGNOSIS**. *Bolitoglossa synoria* is a member of the *B. dunni* species group of the subgenus *Magnadigita* Taylor 1944 (Parra-Olea et al. 2004). Eleven species were included in this species group by Parra-Olea et al. (2004) and two more species have been subsequently described (Greenbaum 2004, McCran-

ie et al. 2005). *Bolitoglossa synoria* can be distinguished from all other species in this group by the combination of having reduced webbing (2 to slightly over 2 segments on Toe III on the forelimbs and of Toe III between Toes III–IV on the hind limbs free of webbing), the subcaudal surface dark grayish brown with dirty white mottling, the dorsal surfaces of the head and body dark grayish brown, and the dorsal surface of the tail dark grayish brown with clay colored mottling and flecking. The species also differs from the other species in the group (except DNA unknown in *B. oresbia*) in mitochondrial DNA sequences (Parra-Olea et al. 2004).

• **DESCRIPTIONS**. Detailed descriptions of external morphology are in McCranie and Köhler (1999), McCranie and Wilson (2002), Köhler et al. (2005), and McCranie and Castañeda (2007).

• **ILLUSTRATIONS**. Color photographs are in McCranie and Wilson (2002), Wilson and McCranie (2004a), Köhler et al. (2005), and McCranie and Castañeda (2007). A black-and-white photograph is in McCranie and Köhler (1999: errata). Line drawings of fore-and hind feet and generalized body shape are in Köhler et al. (2005). A black-and- white photograph of a forefoot is in Greenbaum (2004).

• **DISTRIBUTION**. *Bolitoglossa synoria* occurs on Cerro El Pital, a mountain range that straddles the border in southwestern Honduras (Departamento de Ocotepeque) and northern El Salvador (Departamento de Chalatenango). The known elevational range of occurrence is 2150–2713 m in primary to disturbed cloud forest (Lower Montane Moist Forest and Montane Rainforest formations of Holdridge 1967).



Map. Distribution of *Bolitoglossa synoria*. The circle denotes the type-locality and the dots other localities.

• **FOSSIL RECORD**. None.

• **PERTINENT LITERATURE**. What little is known about the natural history of this species was discussed by McCranie and Köhler (1999), McCranie and Wilson (2002), Köhler et al. (2005), and McCranie and Castañeda (2007). McCranie and Wilson (2002) discussed its distribution by Honduran physiographic and ecogeographic regions. Wilson and McCranie (2003) discussed its status as an "indicator species" used to measure environmental stability in Honduras and those authors considered the species to be highly vulnerable. Wilson and McCranie (2004a) discussed its conservation status in Honduras and also considered the species to be highly vulnerable, and McCranie and Wilson (2006) considered the species to be declining. Greenbaum and Komar (2005) and Köhler et al. (2005) considered the species to be critically endangered in El Salvador. Wilson and McCranie (2004b) discussed its distribution within the Honduran cloud forests, and McCranie (2007) listed locality data for Honduran museum specimens. Parra-Olea et al. (2004) studied its mitochondrial DNA and presented a phylogenetic analysis of its relationships among the genus *Bolitoglossa* that placed it in the *B. dunni* species group. Parra-Olea et al. (2004) also placed the species in the subgenus *Magnadigita* Taylor (1944). The species was included in diagnoses of new species of *Bolitoglossa* by Greenbaum (2004) and McCranie et al. (2005). Greenbaum (2004) also reproduced the figure of the "*Magnadigita*" clade previously published in Parra-Olea et al. (2004). McCranie et al. (2005) included a map showing the known localities of this species and the remaining members of the *B. dunni* group in Honduras, Greenbaum (2004) a map showing this and the other species in the group in southwestern Honduras and northwestern El Salvador, and Köhler et al. (2005) included a map with the El Salvadoran localities plotted. Duellman (2001) listed the species as occurring in the Eastern Nuclear Highlands of Middle America and Wilson et al (2001) included the species in an addendum. Larson et al. (2003) listed the species as a member of the subfamily Plethodontinae, tribe Bolitoglossini, in the genus *Bolitoglossa*, and also included it in the *B. dunni* group. Duellman and Schlager (2003) included it in their valid species list and Dubois et al. (2005) included it in their taxonomic additions list. Rodríguez-Robles et al. (2003) listed the paratypes in their MVZ type specimen catalogue.

• **ETYMOLOGY**. The name SYNORIA is transliterated Greek and means borderland. It is used in reference to the species being restricted in range to just a few kilometers on either side of the Honduran-El Salvadoran border on Cerro El Pital.

• **COMMENT**. McCranie and Castañeda (2007) suggested the common name Salamandra Pitalense for this species.

• **ACKNOWLEDGMENTS**. E. Greenbaum provided information on *Bolitoglossa synoria* contained in Köhler et al. (2005) in advance of its publication.

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